

CLAIMS

What is claimed is:

1. An apparatus for supporting a stent during a process of coating the stent, comprising:

a member for supporting a stent during the coating process, wherein a section of the member includes a porous surface capable of receiving the coating substance during the coating process.

2. The apparatus of Claim 1, wherein the pores have a diameter between about 0.2 microns and about 50 microns.

3. The apparatus of Claim 1, wherein the member includes a first member for making contact with a first end of the stent and a second member for making contact with a second end of the stent and wherein the pores are located on at least a region of the surface of the first or second members.

4. The apparatus of Claim 3, wherein the first or second member is made from a metallic material selected from a group of 300 Series stainless steel, 400 Series stainless steel, titanium, tantalum, niobium, zirconium, hafnium, and cobalt chromium alloys.

5. The apparatus of Claim 3, wherein the first or second member is made from a polymeric material.

6. The apparatus of Claim 5, wherein the polymeric material is selected from a group of regenerated cellulose, cellulose acetate, polyacetal, polyetheretherketone, polyesters, highly hydrolyzed polyvinyl alcohol, nylon, polyphenylenesulfide, polyethylene, polyethylene terephthalate, polypropylene, and combinations thereof.

7. The apparatus of Claim 3, wherein the first or second member is made from a ceramic material selected from a group of zirconia, silica, glass, sintered calcium phosphates, calcium sulfate, and titanium dioxide.

8. The apparatus of Claim 3, wherein the first and second members have inwardly tapered ends that penetrate at least partially in the first and second ends of the stent and are in contact with the first and second ends of the stent.

9. The apparatus of Claim 3, additionally comprising a third member for extending within the stent and for securing the first member to the second member.

10. The apparatus of Claim 9, wherein the outer surface of the third member does not make contact with the inner surface of the stent.

11. The apparatus of Claim 1, wherein the member includes a first member for making contact with a first end of the stent, a second member for making contact with a second end of the stent, and a layer disposed on the surface of the first or second member to absorb coating material that comes into contact with the layer.

12. A mounting assembly for supporting a stent during the application of a coating composition onto the stent, comprising:

a support member including means for receiving and containing the excess coating composition applied to the stent during the application process.

13. The mounting assembly of Claim 12, wherein the means is defined by a plurality of pores made on a selected region of the support member.

14. The mounting assembly of Claim 12, wherein the support member includes a first member for supporting a first end of the stent and a second member for supporting a second end of the stent and wherein the surface of the first or second member includes cavities.

15. The mounting assembly of Claim 14, wherein the support member additionally includes a third member for extending within the stent and for securing the first member to the second member and wherein the distance between the first member and the second member can be adjusted by inserting the third member deeper into the first member or the second member.

16. The mounting assembly of Claim 12, wherein the support member includes a first member for supporting a first end of the stent, a second member for supporting a second end of the stent, and a layer disposed on the surface of the first or second member to absorb coating material that comes into contact with the layer.

17. A method of coating a stent, comprising:
positioning a stent on a mounting assembly, wherein a section of the mounting assembly includes a porous surface; and
applying a coating composition to the stent, wherein at least some of the coating composition that overflows from the stent is received by the pores.
18. The method of Claim 17, wherein the mounting assembly includes a first member for making contact with a first end of the stent and a second member for making contact with a second end of the stent and wherein the pores are located on at least a region of the surface of the first or second members.
19. The method of Claim 17, additionally comprising at least partially expanding the stent prior to the act of applying.
20. The method of Claim 17, wherein the coating composition includes a solvent, a polymer dissolved in the solvent, and optionally a therapeutic substance.
21. The method of Claim 17, additionally comprising rotating the stent about the longitudinal axis of the stent during the act of applying.
22. The method of Claim 17, additionally comprising moving the stent in a linear direction along the longitudinal axis of the stent during the act of applying.
23. The method of Claim 17, wherein the act of applying a coating composition comprises spraying the coating composition onto the stent.

24. A support assembly for a stent, comprising:

a member for supporting a stent, wherein the member includes an absorbing layer for at least partially absorbing some of the coating material that comes into contact with the absorbing layer.